

# KURTIS & ASSOCIATES, P.C.

SUITE 600  
2000 M STREET, N.W.  
WASHINGTON, D.C. 20036

(202) 328-4500  
TELECOPIER (202) 328-1231

## **Report to the Federal Communications Commission on Carrier Efforts Toward Attaining Digital TTY Accessibility, and the Status of the Various Technological Solutions, as Provided by CC Docket No. 94-102, In the Matter of Revision of the Commission's Rules To Ensure Compatibility with Enhanced 911 Emergency Calling Systems**

Public Service Cellular, Inc. ("Public Service") and Enterprise Wireless PCS, L.L.C. ("Enterprise") (together "the Companies"), by their attorneys, pursuant to the Federal Communications Commission's ("Commission") *Fourth Report and Order* in CC Docket No. 94-102,<sup>1</sup> hereby file a Quarterly Report for the quarter ending September 30, 2001, detailing their efforts towards attaining digital TTY accessibility, and the status of the various technological solutions that will help them attain that goal. Public Service provides switching services for Enterprise and is also the Network Operating member of the L.L.C.

In the *Fourth Report and Order* the Commission established December 31, 2001 as the new deadline for carriers operating digital wireless systems to have obtained all software upgrades and equipment necessary to make their systems capable of transmitting 911 calls from TTY devices. It further established June 30, 2002 as the deadline for carriers to integrate, test and deploy the technology in their systems in conjunction with the public safety community. In order to be assured that the aforementioned deadlines will be met without complication, the Commission required digital wireless carriers to submit Quarterly Reports fifteen days after the end of each quarter.<sup>2</sup> Public Service and Enterprise now file this instant report with the Commission.

### **I. Carrier Background**

Public Service provides analog and digital CMRS wireless service in the Columbus, GA/AL MSA; Georgia 6 – Spalding; Alabama 5 – Cleburne; Alabama 8 – Lee; Georgia 5 – Haralson; and Georgia 9 – Marion RSAs; and the Anderson, SC; Anniston, AL; and Columbus, GA BTAs.<sup>3</sup> Enterprise provides broadband Personal Communications Service ("PCS") in the B115 – Dothan, AL; B334 – Opelika, AL; B006 – Albany, GA; and B237 – LaGrange, GA

---

<sup>1</sup>In the Matter of Revision of the Commission's Rules To Ensure Compatibility with Enhanced 911 Emergency Calling Systems, *Fourth Report and Order*, CC Docket No. 94-102, 15 Fcc Rcd 25216, 65 Fed. Reg. 82293 (December 28, 2000), ("*Fourth Report and Order*").

<sup>2</sup>*Id.*

<sup>3</sup>Stations KNKA415 (CMA153B), KNKN872 (CMA376B1), KNKN913 (CMA376B2), KNKN883 (CMA376B3), KNKN687 (CMA311B3), KNKN932 (CMA314B2), KNKN934 (CMA375B2), KNKN976 (CMA379B1), KNLG210 (BTA016F), KNLH422 (BTA017D), and KNLH421 (BTA092F).

BTAs.<sup>4</sup> Public Service and Enterprise intend to do everything within their power to comply with the requirements of 20.18(c) of the rules, to provide hearing-impaired persons with TTY access via the 911 dialing code over their digital wireless network. However, the ability for TTY devices to actually transmit calls over the TDMA digital portion of Public Service's or Enterprise's network is wholly dependent upon the availability of the required infrastructure hardware and software and compatible handsets in sufficient time to meet the Commission's deadline. Public Service and Enterprise respectfully submit that these items are both beyond their control. Accordingly, the Companies have requested information and a status update from their network infrastructure provider and handset providers regarding their ability to meet the Commission's deadlines.

## **II. Access to E911 Through TTY Devices**

### **A. Development Activities**

Public Service utilizes analog AMPS and TDMA digital equipment provided by Lucent Technologies ("Lucent") for its wireless network infrastructure. Enterprise utilizes TDMA digital equipment provided by Lucent. In response to the inquiries posed by Public Service and Enterprise, Lucent has provided a status update on its progress in achieving full compliance with the Commission's rules for the Companies' infrastructure. Lucent's response is appended hereto as **Exhibit A**. Public Service and Enterprise are not independently capable of verifying the information presented below but have no reason to believe that it is not accurate.

Public Service and Enterprise provide service to a number of brands of certified handsets owned by their subscribers and roamers entering their market, including Nokia, Motorola, Ericsson, and Audiovox. The Companies have requested that these manufacturers provide information on their progress in achieving full compliance with the Commission's rules with its TDMA handsets. Ericsson responded and advised the Companies that it releases quarterly reports directly to the TTY Forum. Public Service and Enterprise refer the Commission to that report. Motorola's response is appended hereto as **Exhibit B**. Neither Public Service nor Enterprise are independently capable of verifying the information presented therein, but have no reason to believe it is not accurate. The Companies have not yet received responses from the other handset manufacturers, and therefore cannot report on their development activities. In the past, however, Nokia provided this information directly to the Commission in its own quarterly report. Public Service and Enterprise presume that Nokia will follow the same procedure for this quarter.

The appended Lucent information is respectfully submitted in response to these issues, as required in the Commission's *Fourth Report and Order* (rel. Dec 14, 2000).

- (1) *Network Infrastructure Software Development*
- (2) *Handset Development and Testing Plans*
- (3) *Beta Testing and Lab Testing*

---

<sup>4</sup>Stations KNLF545 (BTA115), KNLF546 (BTAB334), KNLF547 (BTA237) KNLF548 (BTAB006).

- (4) *Release and General Availability to Carriers of Network Infrastructure Software*
- (5) *Availability to Carriers of Full Acceptance Test Units*
- (6) *Efforts Toward Achieving Digital Wireless Solution Compatibility With Enhanced TTY Devices*

## **B. Testing and Deployment Activities**

Once equipment becomes available, Public Service and Enterprise will perform the appropriate tests. The specific details of a time line to implement 911 access to TRS via TTY devices over the digital wireless network, and other issues related to such implementation, including handset development and testing, are tied to the technical specifications of the subscriber equipment that is being developed to provide TTY compatible service. As such, they are beyond the scope of information which Public Service or Enterprise can provide. Such questions are more appropriately addressed by equipment vendors because the equipment vendors, and not the licensees, are directly involved in developing compliant equipment. The appended information from Motorola is respectfully submitted in response to these issues, as required in the Commission's *Fourth Report and Order* (rel. Dec 14, 2000).

Because of the lack of available infrastructure hardware and software and compatible handsets, Public Service and Enterprise have yet to undertake any testing and development activities. However, Lucent's response has included some recommended testing procedures which, as of this point in time, Public Service and Enterprise intend to follow once the requisite infrastructure and subscriber hardware and software is available. The Lucent response addresses these issues, as set forth in the Commission's *Fourth Report and Order*.

- (7) *Carrier Coordination of Testing With PSAP*
- (8) *Carrier Testing Activities, Including Field Testing, Consumer End-to-end Testing, and Other Necessary Tests*
- (9) *Retail Availability of Necessary Consumer Equipment*
- (10) *Geographic Scope of Network Infrastructure Deployment*

## **III. Conclusion**

As soon as the issues surrounding TTY access over digital networks are resolved, and assuming they are completed in a timely manner, Public Service and Enterprise intend to promptly and fully comply with the requirements of the *Fourth Report and Order*, to obtain all software upgrades and equipment necessary to make their systems capable of transmitting 911 calls from TTY devices by December 31, 2001, and to integrate, test and deploy the technology in their systems in conjunction with the public safety community by June 30, 2002 but, respectfully submit, that their ability to do so, as of this point in time, remains entirely beyond their control. As required, Public Service and Enterprise will provide the Commission with quarterly updates on the status of development and deployment, as advised by the Companies'

infrastructure and handset vendors and, if necessary, will seek a waiver of the applicable deadlines if the requisite equipment and software does not actually become available in sufficient time to enable Public Service or Enterprise to meet the deadlines.

Respectfully Submitted,

Public Service Cellular, Inc.  
Enterprise Wireless PCS, L.L.C.

October 15, 2001

/s/ Anna E. Ward  
Michael K. Kurtis  
Anna E. Ward

*Their Attorneys*

Kurtis & Associates, P.C.  
2000 M Street, N.W.  
Suite 600  
Washington, D.C. 20036  
(202) 328-4500

## **EXHIBIT A**

**Lucent Technologies**  
Bell Labs Innovations



October 12, 2001

Re: Revision of the Commission's Rules To Ensure Compatibility with Enhanced 911  
Emergency Calling Systems, CC Docket 94-102, TTY Compatibility with Digital  
Wireless Systems

Lucent Technologies Inc. ("Lucent") is an active participant in the TTY Forum, which is developing standards to ensure compatibility between digital wireless systems and TTY devices.

Lucent has completed the development of 911 TTY (TDMA), however the mobiles that are available in the market are not stable as yet thus we have not been able to complete our testing. Once stable mobiles are available Lucent will complete the testing and provide the solution to our customers.

Lucent is strongly committed to developing TTY solutions for our products and will continue working towards this goal. If you have any questions, please contact me at (630) 979-8845.

Sincerely,

Curtis A Miller  
Sr Mgr Network Product Mgmt

## **EXHIBIT B**

## MOTOROLA TTY COMPATIBILITY DEVELOPMENT STATUS REPORT 3<sup>rd</sup> Quarter 2001

Product	Standard	Status	Milestones	Progress
CDMA Handset	IS 127-3 IS 733-2	Integration & System Test	IOT: June 2001 UI: October 2001 ROM: December 2001 SA: 1Q 2002	Planning to participate in November ATIS testing with Sprint.
GSM Handset	TS 26.226 TS 26.230 TR 26.231	Integration & System Test	UI: October 2001 IOT: October 2001 ROM: December 2001 SA: 1Q 2002	Mobile to Mobile calls are functional. Optimization activities are on-going. IOT will start in October.
iDEN Handset		Beta in customer's lab	On plan	
TDMA Handset	IS 823-A IS 840-A	Integration & System Test	IOT: September 2001 UI: September 2001 ROM: October 2001 SA: 1Q 2002	Tested at AWS in Naperville, IL using Lucent Infrastructure. Tested both AMPS and TDMA.
CDMA Infrastructure	IS 127-3 IS 733-2	Ready for FOA	Field Testing: Nov 13-15, 2001	Infrastructure software in field has digital TTY support available now. Only handsets are needed to commence FOA.
iDEN Infrastructure		Beta in customer's lab	On plan	

Note: Motorola works with its carrier customers to provide them specific information related to their respective products.

Note: IOT is Inter Op Testing with RAM based parts for Character Error Rate testing  
UI is User Interface testing with HCO / VCO support  
ROM is the availability of ROM based phones. These should be functionally identical to a RAM phone.  
SA is Ship Acceptance of production volume quantities

Al Lucas  
Office of Access Excellence  
Motorola  
Phone: 561-739-2505  
TTY: 561-739-2506



## CERTIFICATE OF SERVICE

I, Carol A. Mindzak, a secretary with the law firm of Kurtis & Associates, P.C., do hereby certify that I have this 15<sup>th</sup> day of October 2001, filed the foregoing “REPORT TO THE FEDERAL COMMUNICATIONS COMMISSION ON CARRIER EFFORTS TOWARD ATTAINING DIGITAL TTY ACCESSIBILITY, AND THE STATUS OF THE VARIOUS TECHNOLOGICAL SOLUTIONS, AS PROVIDED BY CC DOCKET NO. 94-102, IN THE MATTER OF REVISION OF THE COMMISSION’S RULES TO ENSURE COMPATIBILITY WITH ENHANCED 911 EMERGENCY CALLING SYSTEMS” electronically with the Federal Communications Commission’s Electronic Comment Filing System. I have also filed a diskette copy of this report with the Federal Communications Commission’s copy contractor, Qualex International. In addition, on this date, I have served copies of this Report via hand delivery or e-mail to the following:

Magalie Roman Salas, Secretary  
Office of the Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street, S.W., Room TW-A325  
Washington, D.C. 20554

Kris Monteith, Chief  
Policy Division  
Wireless Telecommunications Bureau  
Federal Communications Commission  
445 12<sup>th</sup> Street, S.W., Room 3-C124  
Washington, D.C. 20554

Pam Gregory, Chief  
Disabilities Rights Office  
Consumer Information Bureau  
Federal Communications Commission  
445 12<sup>th</sup> Street, S.W., Room 6-C415  
Washington, D.C. 20554

Melinda S. Littell\*  
Wireless Telecommunications Bureau  
Federal Communications Commission  
445 12<sup>th</sup> Street, S.W., Room 3-A161  
Washington, D.C. 20554  
[mlittell@fcc.gov](mailto:mlittell@fcc.gov)

/s/ Carol A. Mindzak

Carol A. Mindzak

\* Sent via e-mail